JULY 1959 2s. 3d.

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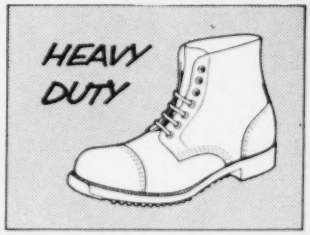
'GROWING GIANT' FIRM—SUCCESS WITH HUMAN RELATIONS 13

LEGAL POSITION OF THE DOMESTIC TRIBUNAL 29

SAFETY—BUILT INTO MACHINE AND TRAINED INTO OPERATOR 30

TOTECTORS



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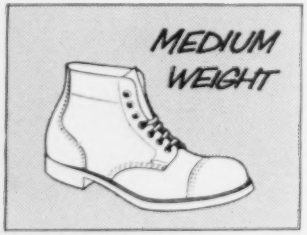

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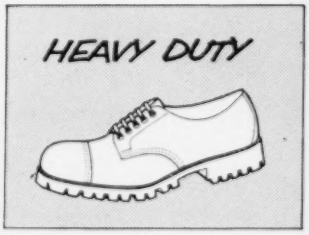

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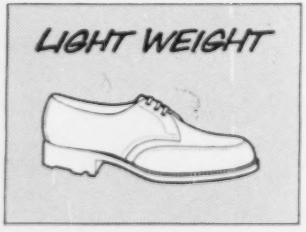

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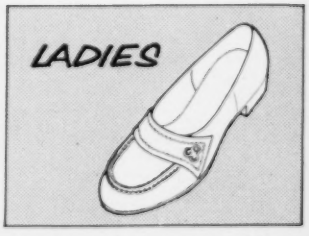

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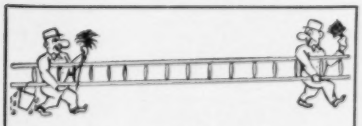

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JULY, 1959

CONTENTS

PAGE

4 **POINT-COUNTER-POINT**

13 **Leading Ladies of Technology** — *William Lewis*
A personnel policy that fosters loyalty and cheerful teamwork

17 **Facing the Atomic Menace** — *Dr. E. E. Lieber*
How to remove the risks and fears from working with radioactive materials

20 **Quality Films for Specialists** — *Alec M. Hughes*
A critical guide to the outstanding industrial film libraries and their services

27 **Mergers, Growing Pains and Neglected Managers** — *Discussion Leader*
Middle management troubled by take-over bids and unsettled by "new boys"

29 **Right Side of the Law**
Decisions of domestic tribunals can rarely be reversed

30 **From Teachers to Designers of Safety** — *W. L. Edwards*
Summary of papers given at RoSPA's annual Industrial Safety Conference, Scarborough

News & Readers' Service

7 DIARY AND ADVERTISERS' INDEX
9 NEWS, NAMES, NOTES
31 NEW BOOKS
33 CATERING TODAY
35 **READERS' ENQUIRY SERVICE**
37 EQUIPMENT MARKET

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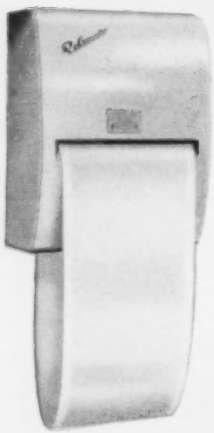

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POINT COUNTER POINT

Informed forecasts

FRINGE benefits can attach people to their employers with unfortunate consequences on the mobility of labour. This was part of a new social pattern outlined by Dr. George Copeman, former editor of "BUSINESS, Journal for Management," at a conference at Eastbourne on May 24. Addressing the Staff Management Association of the IPM, he added that political parties and unions of employers and employees are not well placed for altering these benevolent but restricting arrangements. Their roots are in an out-of-date class system. But personnel managers could do much towards giving a new freedom, dignity and " middle-class status " to employees of all levels, from senior executive down to the shop floor.

Dr. Copeman suggested two sorts of codification to slacken the chains of employment where they may be burdensome. Firstly, personnel managers have already done much and can do more to codify privileges dispensed within a firm, so that all receive similar benefits in similar circumstances. The logical next step was to codify privileges as between firms, so that for example pensions were transferable. This would be a move towards the desirable state in which individuals for the most part cease to be dependent on either company or government welfare schemes, and make their own provision for adversity and retirement. Such a state would no doubt involve more widespread employee shareholding, with more people being owners as well as earners.

Another speaker at the conference, Mr. Francis Cammaerts, headmaster of Alleyne's Grammar School, Stevenage, expressed a similar attitude when he suggested that whether young people entered apprenticeships or not, it would always be a fine thing if youngsters could be busy with a course of some sort on which a certificate might be gained. The more trained people we have in the labour market with defined qualifications, the less will there be of apathy and (its half-brother) boredom within industry.

Many of his audience displayed surprise when Mr. Cammaerts complained that our educational system had never been geared to the knowledge that basic intelligence is of prime importance up to the age of 12 or 13 but character, ambition, desires, etc., are of more significance afterwards. This certainly sheds a strange light on certain systems of interviewing.

Skyscraping

"I would ask you therefore to look once again at the apprenticeship figures of your company to make sure that you have under training those one or two boys more than you really require immediately. Show confidence in the future and show confidence in your ability to face it."

THESE were the words of Mr. T. V. Prosser, president of the National Federation of Building Trades Employers to their Southern Counties members recently. From personal experience he assured his fellow members that *an apprentice is an investment in money, an investment in skill and an insurance against the future.* He also suggested that the four or five year apprenticeship is not a long time when compared with the 44 years of adult life when the trained craftsman is serving industry and his community.

As some 60,000 *additional* 15-year-olds will be leaving school this year and by 1962 more than 200,000 above the 1958 figures will be available for employment, our target should be to engage 25 per cent more apprentices this year than were taken into training in 1957. Quite apart from the undeniable social responsibility for placing these young people in employment, the building trade has the extra challenge of providing houses, schools and churches for this new adult population. What a chance of planning the structure and quality of a well-trained labour force for the years ahead!

POINT COUNTER POINT

CLOSER links between the medical branch of the Factory Inspectorate and the Ministry's service for the disabled are recommended in the White Paper published in May. Apart from this, no major change in the duties, organisation and staffing of the medical branch are proposed.

But the White Paper does say that it would probably be worthwhile if doctors working in the field of occupational hazards outside the Department could be brought into the Inspectorate for a limited period for special tasks; and similarly, sympathetic consideration would be given, subject to the needs of the Inspectorate, to applications by members of the medical branch to take "approved employment" on work which would increase their value to the Department.

AN editorial in a recent issue of "New Dawn," journal of the Union of Shop, Allied and Distributive Workers makes strange reading. It says:

"Some utterances by people in the co-operative movement make me want to bury my head in my hands, after taking a double-dosed tranquilliser. More and more importance is being attached to the work of personnel managers by capitalist employers. There are elaborate training courses in personnel management. And qualified men with an appropriate university degree can command £2,000-plus a year salaries.

"But one co-operative education secretary, blithely suggests that in the co-operative movement education secretaries '*might well undertake the wider personnel management duties*' that societies are now realising are essential. The real tragedy is that many co-operative society committeemen will readily agree with him."

This Month's Cover . . .

The appearance of the frogman in our front cover picture would suggest the world of science fiction to many people. In fact, the futuristic figure is that of a worker—in a cell at the high activity handling building at Harwell: he is decontaminating a working surface.

On pages 17-20 our medical expert, Dr. E. E. Lieber, discusses the education of management and personnel in radiation hazards; and in the August issue, his third article in this series will deal with the prevention and treatment of radiation injuries.

We wish to remind readers of the free service operating in connection with our 'Equipment Market' (pp. 35/36).

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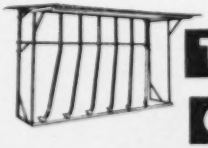

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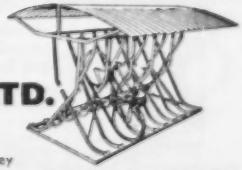

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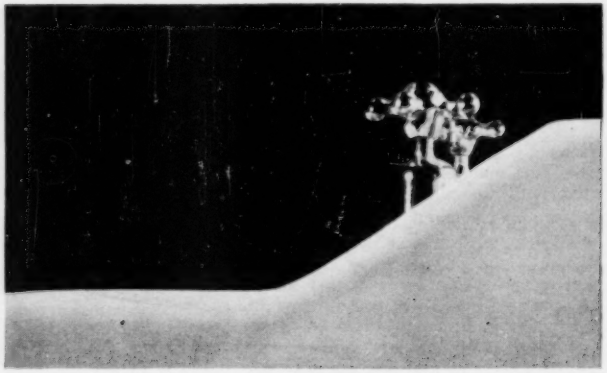

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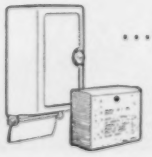

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INDEX TO ADVERTISERS

Abix Metal Industries Ltd., 5
Aptaker Organisation, J. D., 12
Aromatic Disinfectant Block Co. Ltd., 5
Blick Time Recorders, 45
Borax Ltd., 32
British Patent Perforated Paper Co. Ltd., The, 6
Cimex Fraser Tuson, 8
Cullum, H. W., *back cover*
Daily Herald, 28
Domestos Ltd., 41
Edwards, N. A. W., & Co. Ltd., 48
Formica Ltd., 23-26
Gas Council, 2-3
General Electric Co. Ltd., The, 42
Grey, Charles C., 44
Harboro' Rubber Co. Ltd., 48
Harvey, G. A., & Co. (London) Ltd., 43
Ibex Petroleum Products Ltd., 44
Irving Air Chute, 18
Linen Replacement Services, 4
Llewellins Ltd., 11
Merchant, Peter, Ltd., 16
Metropolitan College, 7
Northide Ltd., 9
Odoni, Alfred O., & Sons Ltd., *inside back cover*
Peel, H., Ltd., 48
Robinson & Sons Ltd., 46
Sandeman Bros. Ltd., *inside back cover*
Scottish Industrial Catering Co. Ltd., 34
Sieber, James, Equipment Co. Ltd., 7
Simplamatic Machine Co. Ltd., *inside back cover*
Sketchley Ltd., 10
South Western Automatic Co., 45
Strand Cleaning Services, 1
Supercraft Garments Ltd., 39
Truvox Ltd., 37
Vernon & Co. Ltd., 18
Wandsworth Electrical Manufacturing Co. Ltd., 47
Wheeler, H., & Co., 1
Wilkins & Denton, *inside front cover*
Wimzo (Wimzol) Ltd., 48
Wrights Coal Tar Soap, *inside back cover*

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A Readership Survey

In our June issue we introduced a Free Reader Service as an additional facility for readers especially interested in the Equipment Market section of this journal. As a further improvement, we have expanded this month's equipment section to multiply the opportunities for making use of this service. Readers will also find a leaflet in this issue explaining the survey we are making to discover which sections of P. M. & M. are preferred—where we are of most help to our readership.

Clearly, a journal of such a comprehensive nature must be scanned by many specialists who find certain articles particularly useful to them. What we seek to determine now is how often we are justified (by the written approval of our subscribers), in devoting space to subjects of limited appeal, and indeed, in providing news and information on certain general topics.

In short, we must know more in detail about your changing tastes, before we can satisfy your diverse needs. As a start, it would help us considerably to learn if there is widespread endorsement of the modifications in this issue—our new Visual Aids feature, a legal commentary on a significant industrial case, and a separate "New Books" section. This is the time for your constructive criticisms to be effective in the progress of this journal.

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NEWS
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RADIATION HAZARDS and the protection of workers against them was one of the items discussed at last month's International Labour Conference at Geneva. In response to a questionnaire, 52 countries declared themselves in favour of the adoption by the Conference of an international instrument indicating the precautions essential to safeguard workers against these hazards. This follows closely on a statement by the Minister of Labour that there are some 560 factories in this country using radioactive isotopes.

THE PROBLEMS OF FIRE PROTECTION in industry and commerce are to be given special attention in the National Fire Protection Conference arranged for February 1960, under the auspices of the Fire Protection Association. The venture has been timed to follow closely on a number of new clauses in the Factories Act currently passing through Parliament. All enquiries should be addressed to the Secretary of the Association at 31-45 Gresham Street, London, E.C.2.

THIRTY-NINE UNEDITED essays, written by school children on the subject of what they expect from work, have been published by the Industrial Welfare Society, price 1s. What *do* they expect?—"An honest living", "a job that I lick such as somthing to do with woodwork", "happiness", "to be treated fairly", "satisfaction", "a form of employment that is not too boring". The reactions are diverse, and some seem to worry about whether they will even be able to get a job.

Safety, Hygiene and Efficient welfare services provided the theme for the Belgian Government's stand at the 11th Liège International Fair

SUGGESTIONS FOR MEETING requirements for adequate cloakroom facilities for industrial workers, with reasonable arrangements for drying clothing during bad weather, are made in a new booklet, "Cloakroom Accommodation and Facilities in Factories", published by the

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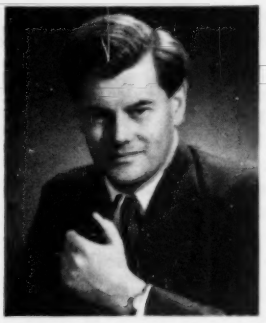
NEWS
NAMES
NOTES

Ministry of Labour and National Service. Emphasis is placed upon the legal requirements demanded by the Factories Act, and guidance is given on how they can be met. The booklet is available from HMSO, price 2s. 6d.

SPECIAL LESSONS in productivity will be given to Leicester children before they go out to work in local industries. The programme has been drawn up by the Leicester Productivity Association in consultation with the Director of Education.

TO ESTABLISH GOOD RELATIONS with neighbours, the Mobil Oil Company has restarted its programme of visits for local inhabitants to the refinery at Coryton. The programme: to explain refinery operations and the measures taken to prevent atmospheric pollution.



Mr. T. H. Beevers, formerly Assistant Master at Harrow School, has been appointed Chief Education Executive for Smiths Motor Accessory Division

Sir Laurence Helsby, KBE, CB, has been appointed Permanent Secretary to the Ministry of Labour, in succession to Sir Harold Emmerson who is retiring from the public service at the end of the summer.

Chairman of the working sessions of the recent National Industrial Safety Conference, **Mr. T. R. Tunstall,** has been appointed Secretary of the Association of Industrial Safety Welfare Exhibitors which was founded in 1955 to assess the potential value of safety exhibitions in which its members may be interested.

Mr. Allan Blackett has been appointed Safety Officer of Steel, Peech & Tozer, following the death of Mr. R. Tierney.

Mr. F. O'Connor, secretary of the Building Workers' Trade Union, has been appointed to membership of the Factories Advisory Council by the Eire Ministry of Industry and Commerce. The Council, which represents both workers and employers, was set up in 1955 to advise the Minister for Industry and Commerce on the making or revising of orders and regulations under the Factories Act, and on the organisation and promotion of campaigns for the safety and welfare of industrial workers.

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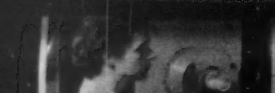


work at Bedford the human relations principles he learned

The main production area at the Bedford factory of Texas Instruments Ltd.

Leading ladies of technology

This firm expands through youth, learning and friendliness

By William Lewis

COWBOYS and transistors! The connection seems as slender as between cabbages and kings—unless you happen to live in Bedford. The link is provided by Texas Instruments Ltd., a manufacturing subsidiary of Texas Instruments Incorporated of Dallas, Texas. Cowboys and transistors—together they spell fine career opportunities for hundreds (soon it will be thousands) of school leavers in Bedford and its surrounding villages.

Last January, after receiving ministerial approval needed to build a new 240,000 sq. ft. factory on the town's northern fringe, Mr. Dudley Saward placed an advertisement in the *Bedfordshire Times*. It showed a small boy in a cowboy suit astride an artist's impression of the projected building. Captioned "giant strides at Bedford," it emphasized the pleasantly landscaped situation of the new single-storey building and also the "fine working conditions for those Bedfordians who make their career with Texas." Over 150 girls from local schools have already responded to this offer as Texas Instruments first came to Bedford in October, 1957, when a small pilot plant was opened in Dallas Road. Now the "healthy young giant" of the advertisement is growing fast as the present strength stands at 250; and by 1963 the firm aims to be providing work for over 1,400 people—1,027 female and 400 male employees.

The word "subsidiary" is misleading. It is true that the building of a Texas Instruments factory in Britain was originally an American idea and the chairman and three of the directors are Americans. But the Company takes a pride in its British character—in the fact that it was a young British B.Sc. in the Dallas Road plant who produced the very first silicon crystal ever to be "grown" on production-line equipment.

Their personnel policy, too, is based on British principles. Mr. A. Spens-Black, their personnel manager, joined the firm in July, 1958, and this is his first job in the industrial personnel field. A retired Lt.-Commander, he applies to his

Three stages in the production of a Texas rectifier ▶

work at Bedford the human relations principles he learned and practised in the Royal Navy. Not long after joining Texas Instruments, he spent a few months in the U.S.A. studying the activities of the personnel department in Dallas. Nowadays he keeps a copy of the American Texas Instruments' manual of personnel management in his office—"for guidance only."

They are British at Bedford, but by no means insular. A good idea is worth trying wherever it comes from and they are now operating a job-evaluation programme based upon the scheme drawn up by the American Management Association. The AMA scheme assesses 12 factors. Texas Instruments' workers at Bedford are assessed on ten: knowledge, experience, capacity for analysis and judgment, ingenuity, responsibility for assets and operations, responsibility for supervision, loyalty and integrity, continuity of employment and working relationships. Although it comes last in the list, the working-relationships factor is rated highly by management. Teamwork is essential in a young company with such a long way to go.

The female staff—they are called "lady technical assistants" to overcome any early prejudice against factory work—will shortly be forming the bulk of the firm's work force. Most of them will have been recruited from local schools, and they will be girls of 16 and over, with GCE qualifications at *O* level in mathematics, chemistry and physics, or equivalent standards.

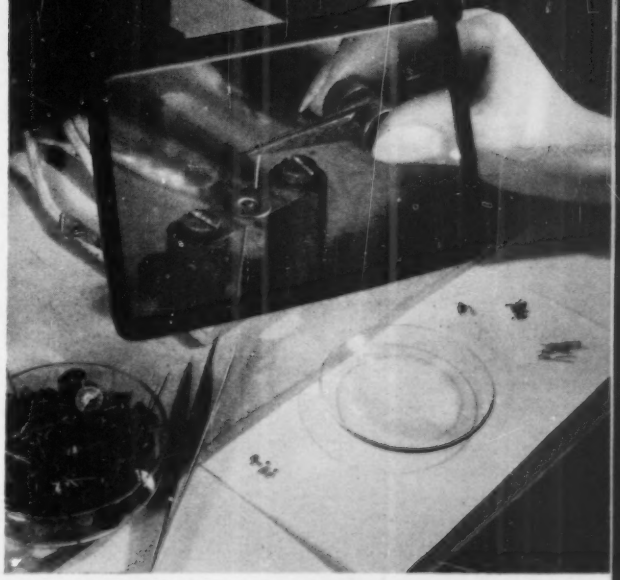
Texas Instruments is perhaps unique in employing such a large staff of girls on this type of work. The processes of crystal growing and the delicate assembly jobs on the production line demand a reliable standard of intelligence and dexterity, and one of the management's chief tasks is to keep the girls from becoming bored. They are taught three or four different jobs so that they can move from one to another. Also they are encouraged to know not only what they are doing but exactly why they are doing it; and this attitude is applied even to the broader questions of Company policy and progress. Each week the supervisors explain the general picture to the girls while, from time to time, the managing director, Mr. Saward, addresses the entire staff, announces new orders, explains any major changes and gives a progress report. Every day he makes an informal tour of the production lines; he also meets each new recruit as soon as she joins.

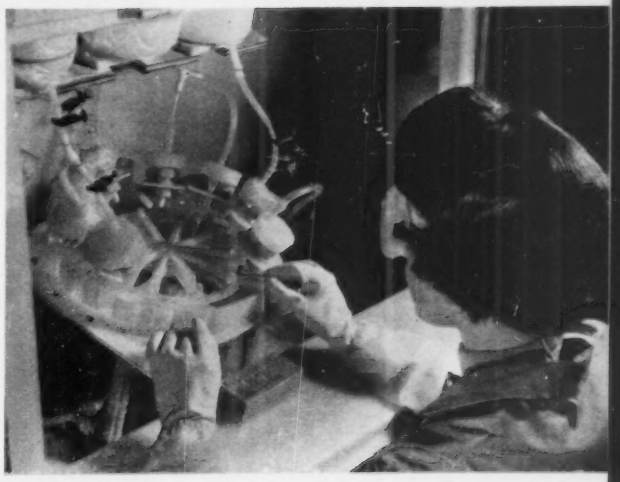
The personnel manager conducts the initial job interview. (Hiring and firing is the responsibility of the departmental heads; Mr. Spens-Black is directly responsible to the managing director, and prefers to operate in a purely advisory capacity.) After interview, the prospective lady technical assistant is shown over the whole department where she will work. Afterwards she is asked for her reactions, with emphasis upon two questions in particular: which job would she prefer and, equally important, which job would she hate?

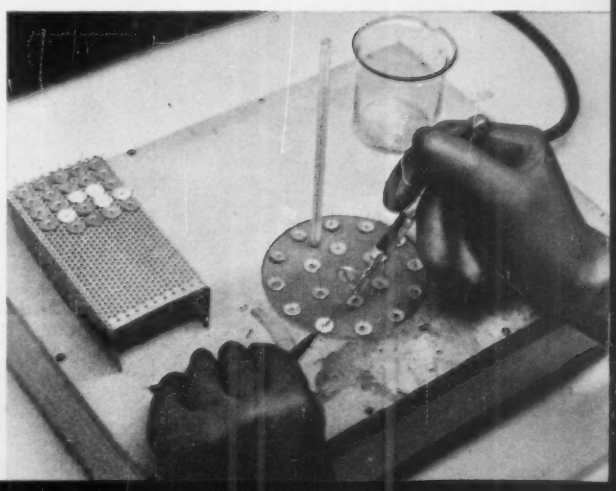
Training has so far been a problem for this young organisation: a problem of time. It has been impossible to allow the girls time off for day-release classes, although some are attending night classes. Plans are now under discussion for an organised training programme which will

◀ *The top picture shows the loading of a diffusion furnace: wafers of silicon at 800° C form layers which make up a transistor. In the centre, a test of signal and switching transistors is being carried out in a glove box; and below, transistors are being removed from an oven, where they have been heat-cycled to prove their reliability.*

Three stages in the production of a Texas rectifier. ▶ TOP: The active silicon element is soldered to the metal header as the anode lead is fixed to the silicon. CENTRE: Rectifiers being loaded into an etch machine. BOTTOM: The active element of the rectifier receives a thin coat of varnish after etching to protect its surface







embrace some form of apprenticeship. The ideal they are aiming for is a promotion ladder which every new L.T.A. can climb, if she shows the ability, to senior L.T.A. level (chargehand grade) and up to supervisory level. At present all supervisors are science graduates, but Mr. Spens-Black looks forward to the time when every promising L.T.A. will have the opportunity of studying for a degree and of aiming for any job in the Company, including engineering research and development.

Rewards at present are largely in the form of fringe benefits: life insurance, medical and accident benefits, a non-contributory pension scheme, holidays with pay, canteen, free coffee and tea during breaks, and a rest room. Everyone is paid monthly by banker's order; everyone works the same nominal hours, 8.30-5.30, office and plant workers, L.T.A.'s and management alike. There is no system of clocking-in —time clocks being used only for overtime work.

They are considering the introduction of extra benefits as a recognition of good service—cash payments, payments in kind such as extra holidays with pay. Cash payments will be linked to the job-evaluation scheme and the Company's avowed aim to pay a fair wage for a job well done. Every member of the staff wears a name badge for security reasons. Though they are printed in different colours, they denote not rank but service—green for less than a year's service and red for one to three years. In another 13 years another badge will be ready—white for 15 years' service. Should management reward long service, or should it reserve the awards for good service? Mr. Spens-Black's personal opinion: "It is reasonable to expect good service from employees as a general standard. But it is important to reward the *continuation* of good service."

Visitors to Texas Instruments are always impressed by the general air of cleanliness and neatness, accentuated perhaps by the fresh contrasting pattern of girls in white nylon overalls on the assembly lines and blue Terylene for the acid processes. They are often surprised by the general use of Christian names, even between L.T.A.'s and departmental heads. The Company does not claim this as the secret of human relations at work (no more than it would offer any of its personnel policies as a model that other firms should follow), but they value the atmosphere of friendship, loyalty and teamwork which it has engendered. Incidentally, it has created no disciplinary problems. When the work force reaches the 1,500 mark, there may have to be some changes in personnel practice—which is only reasonable. "Our human relations system," said one manager, "may have to be modified slightly. But quite honestly we hope it doesn't."

So the "healthy young giant" is growing towards maturity. The advent of this, Bedford's first technical light industry, has been as successful as the firm could have wished. There have been over a thousand job applications since Mr. Spens-Black joined the Company; and about 140 in the first week after the advertisement announced the firm's expansion. With close liaison between the personnel department, local youth employment officers and heads of schools and technical colleges, Texas Instruments can be confident of meeting its future labour requirements—and of maintaining its high standard of workmanship.

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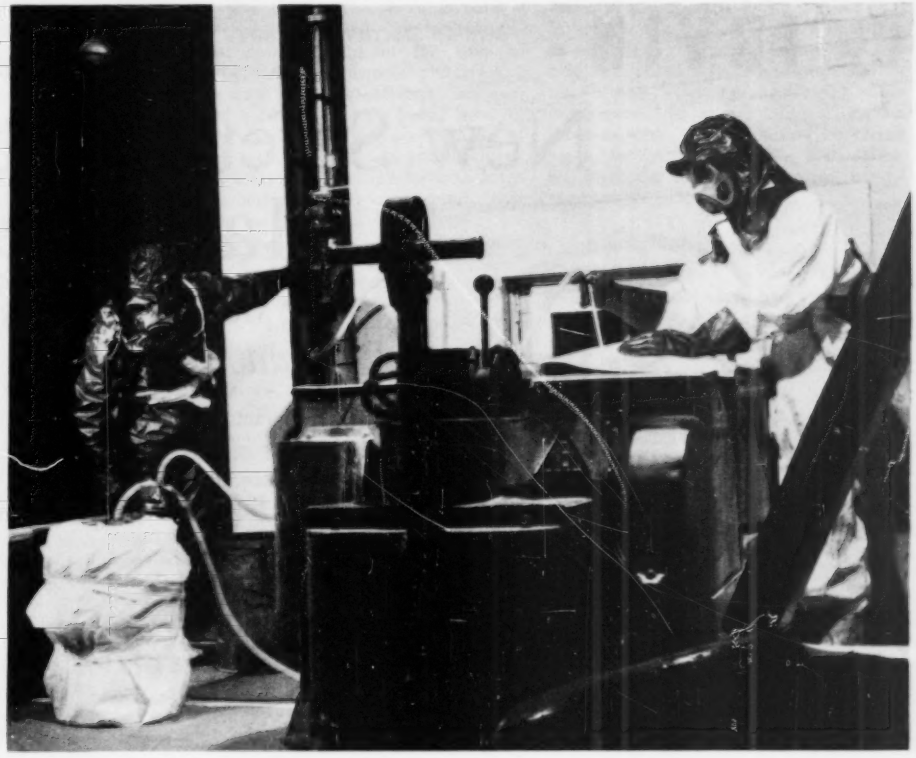

Men wearing plastic protective clothing to handle material irradiated in the pile, and now in liquid form and radioactive

Facing The Atomic Menace

Part 2—How to educate the risks and fears out of working with ionising radiation

by Dr. E. E. Lieber

MEDICAL OFFICER, MICROCELL GROUP OF COMPANIES

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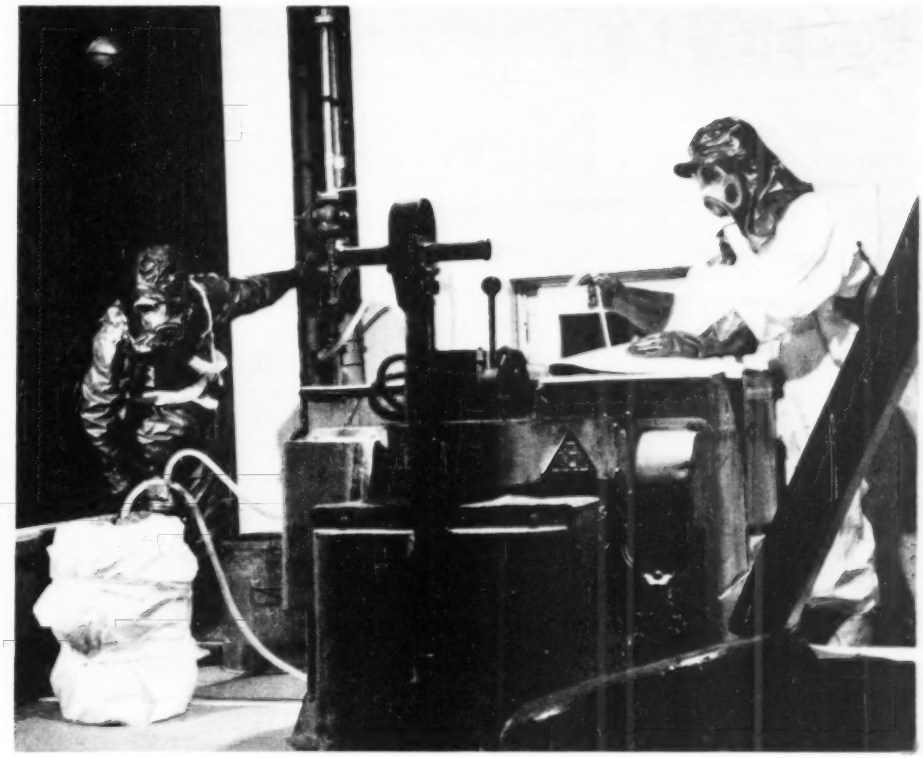

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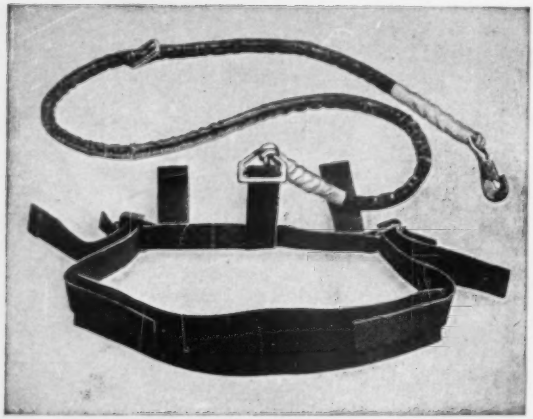

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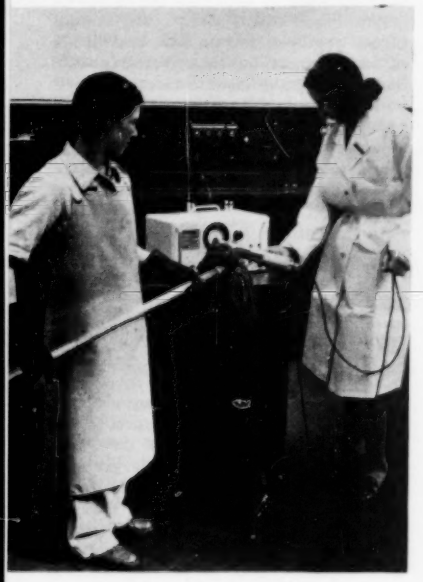


At this time when there is such a rapid increase in the development of atomic reactors and in the uses of isotopes, industrial medical officers and safety and personnel officers, irrespective of their wishes, are being brought face to face with the new hazards of atomic radiation and its potentialities. For this reason they will have to learn the principles of radiation and their relation to the structure of matter, plus the physical, chemical and biological facts of radiation, with particular reference to their technical applications in industry and their harmful effects.

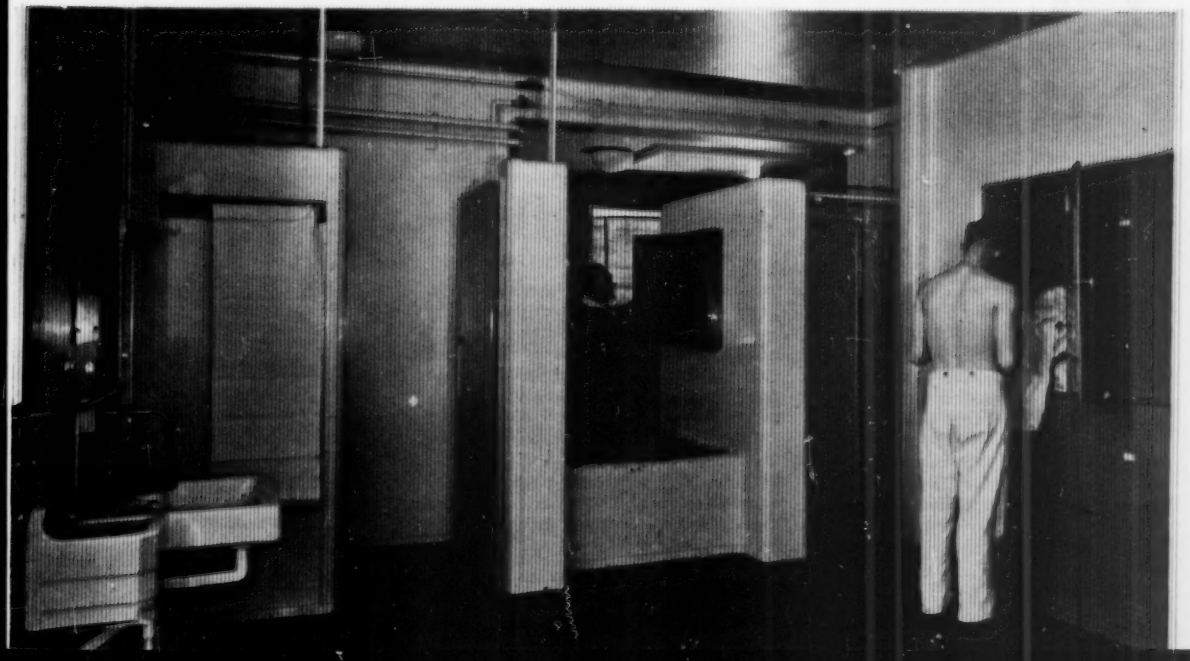
Safety officers must understand methods of detecting and measuring radiation, possess a knowledge of instruments and units, and acquire general information on the various sources of radiation, internal or external, and the various forms of apparatus which measure the emission of ionising radiations and radioactive isotopes—as well as the chemical properties of the elements which have radioactive isotopes, such as germanium, strontium, caesium, etc.

From this outline the responsibilities of the safety officer, personnel officer and industrial medical officer are clear and inescapable. We must exert our energies towards education and must try to prevent unnecessary exposure. A safety officer must be aware how much harmful radiation is being emitted and how long the body will be exposed to it. A safely regulated control of radiation in practice will depend on effective health and safety organisation, since experience has shown that even the more capable worker cannot be relied upon to keep all health and safety requirements in his head while busily engaged with his work.

The safety officer must make himself responsible, when taking over his additional "nuclear" duties, for seeing that the installation and equipment are safe for the worker and for the general public. In other words, definite rules must be in force wherever radioactive material is to be handled. Apart from the provision of instructions on operating methods, there should be the necessary medical supervision for the workers and a suitable medical casualty service. The safety officer should see that only medically suitable and properly trained persons are allowed to work with radioactive material, and that employees, who are liable to exposure to ionising radiation in the course of their work, are instructed in the health hazards involved.

After taking a suitable training course, the safety officer could even be designated as the "radiological health and safety officer," and at that stage he

The stringent precautions to prevent carrying toxic material out of the vestibule of a Harwell laboratory. On the left a man is changing into laboratory clothes and the half-dressed figure on the right is removing contaminated clothes before a shower.



would be competent to train others. His duties would be of a supervisory nature and somewhat arbitrary, depending on the type of industry he is engaged in. Besides radiological protection of the worker, he ought to be able to call for help and advice and (most important) he must know *when* expert advice is needed.

The safety officer will naturally be working in conjunction with the medical officer giving administrative, technical and medical instructions concerning radiation hazards and safe working methods, which will depend on the nature of the installation. His duty will include the instruction of all employees who handle radioactive materials, as well as others who are not regularly employed in such work but who may, from time to time, be exposed to radiation or radioactive material. The method of instruction is a matter for the officer to decide, but the usual methods of approach—lectures, films, posters and leaflets—all help. He also takes charge of visitors and organises the necessary precautions. Of course, authorisation to visit "danger areas" in the works should come from him.

Radioactive material must never be allowed to leave the premises if there is a danger of its subjecting other persons to radiation as in the case concerning the two youths referred to last month.

Ionising radiations, both inside and outside the factory premises, require constant monitoring if they are to be kept below the maximum permissible radiation levels. The fire department should be notified of any mishap or other abnormal conditions which may constitute a radiation hazard. The safety officer is responsible for seeing that no radioactive materials are dealt with by unauthorised persons in the works. Not to be overlooked is the necessity for keeping careful records and ensuring that the monitoring service and medical supervision are properly carried out and co-ordinated.

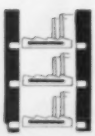
Both he and the personnel officer should be impressed with the potential hazards that follow on inappropriate use or handling of potentially dangerous material. As we explained in a previous article, it must be recognised that the appearance of signs of radiation damage is not immediate, but occurs after a lapse of time. So it is most essential for the officer to be sure that he knows as much about protection in this connection as is compatible with all his other duties.

Cases of exposure should be referred to some institution adequately equipped for diagnosis and treatment such as the Radiological Protection Service. The safety officer should be also impressed with the need for the careful assessing and recording of any such exposure that his worker may have been subjected to—and with the need for promptly seeking the advice of the industrial medical officer who, of course, should have special experience, particularly in view of the possibility of subsequent medico-legal developments.

Another reason why the safety officer requires a thorough knowledge of the subject is that over-exposure may cause grave genetic injuries which will appear in future generations as a result of their forebears having been exposed to ionising radiation. There is the possibility of a serious increase in various hereditary abnormalities and diseases.

In conclusion I would like to state that there is undoubtedly an immediate need for training safety personnel in the hazards of nuclear radiation. This can be achieved by a short intensive residential course in order to build up a knowledge of the basic problems which the safety officer will meet. To mention only a few: the radiation in various parts of the country, monitoring systems, careful recording of data, and the correlation of his findings with those of the industrial medical officer.

We must augment our safety training schemes where necessary and try to prevent exposure as there cannot be over-exposure if a proper vigilance is maintained.



Visual Aids

by Alec M. Hughes

Quality Films for Specialists —and where to find them

IF YOU intend to become a regular and serious film user, you will quickly find yourself confronted with a series of long and sometimes difficult tasks to accomplish. First of these is to find what films are available and suitable for your purpose. You will begin by collecting catalogues — some on the recommendation of colleagues, others because you vaguely associate a particular distributor with a type of film, and a few because you hap upon them by sheer good luck. One acquisition quickly leads to another and it will not be long before you have a score or more and, if you are really keen, it does not seem long before you have three times that number.

But it is then that your troubles begin. If you regularly use films — for education or training for example — you may well find that booking a three months' supply to fit in with the programme of one course (or a series) may take you two or three full working days. And even then you are still probably learning by trial and error, although experience quickly teaches you to avoid mistakes like that of a tutor on a management course who booked a film (*How to file*) to combine with a lecture on office procedure, and discovered too late that it was designed to show budding engineers one of their basic workroom skills.

In your search for films you will gradually become more knowledgeable, and will begin to appreciate not only your own ignorance which you almost certainly share with many colleagues, but the occasion for the surprise and pleasure with which they learn from others of the existence of films on their own special subject. Indeed, the sheer volume of film is often surprising to those concerned with film sponsorship, production, and distribution. After all there are something between 700 and 1,000 new specialised films becoming available in this country every year, a high proportion sponsored by industry and a majority concerned with industrial subjects.

For example, there are some 200 films available in Great Britain on various aspects of atomic energy; about the same number on psychology; over 300 on building; more than 800 on chemistry and related subjects. A new field of development such as automation has already been discussed in more than 100 films.

Where can one begin? In the first place, film libraries may be roughly divided into those that hire films (anything from 5s. to over £1 for a short film lasting not more than 20 minutes, and *pro rata* for longer ones); and those issuing films on free loan — the borrower usually paying only the return postage — though even that is quite an item when you are regularly borrowing films.

A few examples. The chief specialised 16 mm. film library in the world is the *Central Film Library*, which distributes over 2,000 different titles. Details of these films are listed in two catalogues — a general catalogue of sound films (1959-60), which includes over 1,800 films, many on industrial subjects; and a catalogue of films for industry (1959-60), providing details of 612 films and 52 film strips. The former could well be claimed to be the best film catalogue produced in this country — the most comprehensive in subject coverage, beautifully printed and laid out, and well illustrated. It contains 20 pages of films on careers and training, has sections on engineering and general science, and includes many foreign films on a wide variety of subjects. The industrial catalogue is smaller and more easily handled, and the films it lists are classified into subjects such as aircraft, atomic energy, automation, building, civil engineering, and so forth with a very comprehensive section on industrial management (subdivided into general, design, health, materials handling, office methods and procedures, personnel and industrial relations, productivity, promotion, research, safety, and work study).

Comprehensive though they are, these catalogues tend to be out of date as soon as they are issued, and already duplicated supplementary sheets have been issued by the Central Office of Information with 19 additions to the main catalogue and 16 to the industrial catalogue (when the latter was issued early this year, 106 films and five filmstrips formerly distributed had been withdrawn and replaced with 213 new films of which 109 were British). Both catalogues contain a proportion of films available on free loan.

Another important industrial catalogue is that of the *G.B. Film Library*. In addition to their Educational Film Catalogue (with some 700 titles), they have a special industrial catalogue with some 50 films concerned with accident prevention, communications, supervisory training, human relations, and salesmanship; and some specialised subjects such as automation. This library is notable firstly for its high proportion of American management-training films; and secondly, for having pioneered the distribution of film case-studies. Recently, the G.B. Library has also issued a catalogue of sponsored films (some 170 titles), on a wide range of industrial subjects. These are available on free loan, as distinct from the other educational and industrial films which are on hire.

A widely used sponsored library of free films on industrial subjects is that of Sound Services — general in character and including films on specific industries, on particular industrial subjects (such as work study, materials handling, etc.), and perhaps of special interest to those concerned with personnel management and welfare, a number of films on marginal subjects which could occupy a useful place in industrial training and welfare.

The three examples quoted have all been of libraries of a general

A still from an internal training film. Service Every Time *was made by Shell-Mex and B.P. to show how salesmen can improve their forecourt work*

character, and the film user who only borrowed from these sources would have a great deal of very useful material at his disposal. But he would be missing the opportunity of using excellent specialist libraries, either sponsored by individual firms or covering one particular industry, some devoted to one subject. The pattern is a complex one and space permits of only a few examples.

The nationalised industries. British Transport Films and the National Coal Board have excellent libraries: they are excellent for a variety of reasons. In the first place they both contain films of high quality — in some cases of international prizewinning films. Secondly, both libraries provide outstanding examples of the intelligent use of film as an accepted part of a comprehensive programme of industrial education and training. And thirdly, both contain a number of films of general interest.

Because these are libraries devoted to specific industries, it is tempting to overlook them if you are concerned with some other industry. Yet both have films on such subjects as safety, rehabilitation, work study, joint consultation, research, and problems associated with the introduction of new equipment or techniques which have a very wide international value. Thus, British Transport's *Work Study and Tom Howard*, whilst designed for internal use does present a very useful general picture of a training course and the purpose behind it; whilst on the same subject, the National Coal Board's *Shaft Survey* provides the **only** detailed film study of the techniques of a work study engineer and the reasons for them.

Both these libraries provide films on free loan. The **I.C.I. Film Library** offers a similar service, and its films are listed in three catalogues. Their catalogue of medical films is designed mainly for the medical profession, but it includes one section on "Industrial Medicine and First Aid". Their general catalogue lists over 100 films, many on aspects of industry of wide interest (such as Dr. Whinfield's brilliant exposition of his discovery of Terylene). Included in this catalogue is *Balance 1950*, a notable cartoon presentation of I.C.I.'s balance sheet which still remains a classic of its kind on a subject notoriously difficult to present.

One must mention too the **British Iron and Steel Federation's library.** Their latest catalogue, issued during the last few weeks, is notable for its simple and clear layout, and its effective use of a colour code for identifying films by category. This succeeds because it is so simple (one recalls a notable failure in an ambitious Shell catalogue some years ago); and one still feels frustrated when trying to trace films by title or subject in the complex layout of British Transport's catalogue in which the stylist seems to have gained a too-easy victory over the practical film user. A unique feature of the Steel Federation's catalogue is its list of other sources of industrial films classified by subject.

To present these libraries as examples is to invite criticism for having missed out so many others. Yet one should mention **Unilever's** — including many films on their industry latterly adding some notable films on overseas enterprises, health and hygiene (more material here for the welfare department), on materials handling, and very recently, a film designed to interest line management in the managerial possibilities of the computer *(The Electronic Computer in Commerce)*. One should at least mention by name the libraries of the United Kingdom Atomic Energy Authority, the Gas Council, Mullard and Philips and the British Electrical Development Association, John Laing, Dunlop, B.I.C.C., and the British Productivity Council.

From this short list one can see that one industry may well be covered by more than one film library. It seems appropriate therefore to conclude by mentioning the oil industry, which is so imaginatively served by film. There are the films of the **Shell and B.P. group** whose distribution itself has a complex pattern. The Petroleum Films Bureau has a fine library of films from both Shell and B.P. — notable in particular for the number of scientific studies and some of the finest technical expositions on film. Very similar in coverage is the library of Shell-Mex and B.P., which also includes some of the technical and sales training films of that marketing company. In addition, Shell has its own catalogue and arranges distribution of its own films on a world-wide basis. Esso has its own library, also including many fine technical and scientific expositions. Finally, some of the smaller oil companies distribute films either through other libraries (National Benzole through "Sound Services" for example), or through their own public relations department.

Here then is a glimpse of a complex pattern of specialised film distribution, providing a comprehensive range of films suitable for education, training, and welfare activities. Having found the sources from which you may obtain films, your next job is to get to know these films that will best serve your needs, and having acquired them, to see that they are presented as effectively as possible.

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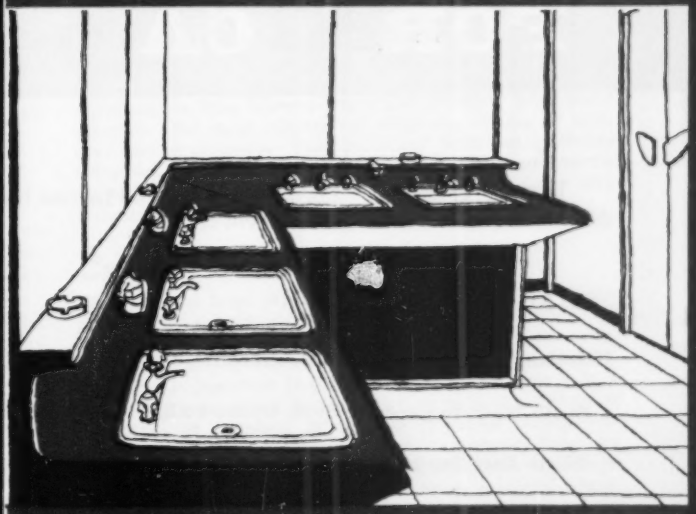

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Discussion Leader

Mergers, growing pains and neglected managers

Formal management training justified

IN the April issue I suggested that many executives and senior managers feel worried and insecure on account of the growing number of mergers and take-over bids in British industry. I have received a letter from Mr. Brian Anthony, suggesting that it is the middle range of managers who feel most of the strain — especially when reorganisation brings them a new superior.

Strain of change

He writes, "Your thought stimulating discourse on executive worries raises some of the most important issues encountered in factory life today. As yet . . . I do not think that the young men are the greatest sufferers.

"In my experience the middle line of executives — all perhaps in or around the 50 to 60 age group, having many years of service with their respective concerns — these are taking the strain. Some of them are, quite appropriately, responsible to younger executives with convincing academic qualifications plus a reasonably sound grasp of practical generalities, but who quite obviously fall short of the competence of those now junior to them in their respective highly specialised fields. That must be so for a while. But why do they so often scorn old methods and fail to win the confidence of the old stagers?

Lack of delegation

"A man has to re-establish his reputation with each new boss. The latter learns wisdom through a sequence of failures and by gaining experience which is so often there on tap all the time. Nowhere does comprehensive 'historical' experience and know-how receive its full valuation. Few of the seniors seem to have learned the art of delegation in such a manner as to delight the junior manager. The joy of doing a job for its own sake and with slight regard to questions of salary has departed from factory life in far too many places. We are making junior managers into clock-watchers. These truly conscientious servants are nevertheless quite unable to lay aside their worries when they get home — where many a course of action is decided for the morrow. They begin to believe what is probably untrue, that someone at the top will be asking how long they have to go before retiring. True or false, this is what puts gold into the dustbin".

Mr. Anthony has responded to a problem which is worrying many managers today. They see, as he does, the need for delegation of responsibilities to men in junior positions especially as firms become larger and processes grow more complex. But these juniors are often the victims of their own past experiences. They have had little responsibility delegated to them, and some of the older ones consequently doubt their capacities to take a decision on their own initiative.

Creating unity

I know one large organisation which is facing up to the problem in a bold and imaginative way. The Board of Directors decided that the managers in the middle range must begin taking responsibility for their own departments. This was a departure from their tradition, because it is a family business where decision-making normally stayed in the hands of members of the family. Even though the request for greater autonomy had come originally from the managers, the top executives realised that such a change was going to be difficult for some of them, many of whom had been with the firm since leaving school.

It was decided therefore to institute a comprehensive training scheme. Groups of managers are being brought together residentially for a fortnight to discuss the firm's change of policy and to examine, with the combined assistance of top executives and instructors, methods of applying the new system. Senior executives are attending many of the sessions and the managers are being encouraged to bring all their doubts and misgivings into the open. Groups which come in a worried frame of mind go away fairly confident that they can cope with the new order of things, and feel that, as one of them put it, "We have helped to make the changes; we came here to iron out the snags together; we feel more a part of the firm than we used to".

Job definition

Another firm that has grown very rapidly in recent years has just formalised its organisational structure in a series of charts and written instructions. Each manager now

knows exactly what his duties and responsibilities are. This firm, too, has been gathering managers into groups for a week's work to explain the new instructions and to hear comments and criticisms. Here then, Mr. Anthony, are two attempts to overcome the difficulties of middle managers. Perhaps other readers will write and tell us if they have had similar experiences.

Hard-Hit Group —Middle managers in middle age

My eyes were opened to another aspect of the middle manager's difficulties by a conversation I had recently with a research chemist, who works for a medium-sized firm. He said that he often disagreed with the firm's policy and with what his immediate superior told him to do. For example, he was asked to concentrate all the efforts and time of his department into research projects which he felt could produce little practical result from a commercial point of view. Meanwhile, his own suggestions for research projects of more immediate value were ignored. "But I just go ahead and do as I am told", he said. "I have more sense than to get tangled with the higher-ups. My line is very specialised, and I should not find it easy to get another job at my salary and in this district".

Confirmation that this is not an isolated attitude comes in a letter from a personnel manager in the North. He writes, "The fear of losing their jobs because of reorganisation is not the only one middle managers are suffering from today. I have had a wide experience of many different kinds of work, and I would say that fear is still one of the most powerful forces in industry today. Many managers delight in exercising their power through frightening their staff. Full employment has not affected the rule of fear — especially for the middle manager who is no longer so young".

It looks as though, in those districts which enjoy stable employment, semi-skilled and skilled workers may be further from the evil of fear and uncertainty today than their superior who sits in the manager's chair. Their skills are marketable and they have less at stake if the turn of fortune's wheel throws them into unemployment.

WHAT WOULD YOU SUGGEST . . . to reduce the anxieties of these managers who are becoming insecure through the inevitable changes caused by growth, the shortage of "top sympathy" and poor communications encouraging servility?

(A guinea is paid for each letter published.)

A motor worker—drawn from life by Peter Collins

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RIGHT SIDE OF THE LAW

by COUNSEL

Decisions of domestic tribunals can rarely be reversed

A CASE of general interest to personnel managers for its commentary on the legal position of domestic tribunals dealing with labour relations and control came before the Court of Appeal recently—Vine *v.* National Dock Labour Board. The plaintiff was a registered dock worker, and he had an aversion to a particular firm employing dock labourers at Southampton, the port at which he worked.

Apparently, his dislike had developed as a result of a dispute with them over wages out of which he had recovered a sum of 12s. 3d. which they had refused to pay. Subsequently, in December, 1956, he was allocated to this firm for work: he refused to go and refused again on two further occasions. In consequence, he appeared before an investigating sub-committee of the Local Board at the beginning of 1957; and a few days later, in his absence, the Local Board considered their report and gave him a week's notice.

Mr. Vine appealed to the local tribunal and the Board rescinded the notice. He was again allocated to the firm and again he refused to work for them. Finally, in March, the Board dismissed him again and the appeal tribunal rejected his appeal. Mr. Vine claimed against the National Dock Labour Board in the Southampton County Court for loss of wages (£9 per week), and £400 damages for wrongful dismissal. The claim was dismissed and he appealed to the Court of Appeal before which he appeared in person.

Their Lordships said the plaintiff was employed under the Dock Workers (Regulation of Employment) Act, 1946, and the regulations made in pursuance of that Act. It was the essence of this scheme that dock workers within it should report for work with any employer to whom they were directed. The Local Board undoubtedly had the power to dismiss a worker from the scheme for misconduct with somewhat serious consequences to him. Their Lordships pointed out that the disciplinary measures taken in January, 1957, were abortive because the Local Board did not follow the proper procedure.

They took action on the report of the investigating committee and decided the matter without giving Mr. Vine a chance to be heard. That was a wrong procedure. Thus the Board rightly cancelled the dismissal when they were so advised. Mr. Vine persisted in his refusal and so he was summoned before the Local Board again, and told of the charges against him having already had the notice of complaint—on the form provided for the purpose of stating a complaint and also requesting an explanation. Their Lordships remarked that he was unable or unwilling to give an intelligible account; and his explanation to the Board reproduced what he had written on the forms, "failure of the *Local Board* to operate its delegated powers do not constitute a *failure* by *me* to observe the conditions of the National Dock Labour Board."

That was what Mr. Vine considered a sufficient explanation to the Local Board which dismissed him again. Mr. Vine appealed to the appellate tribunal as he had the right to do. But, their Lordships pointed out, when Mr. Vine eventually appeared before that tribunal and had an opportunity of giving any explanation he might choose, he did not do so. Inevitably, the Local Board's decision was confirmed.

It was a part of Mr. Vine's cases that certain wage payments made to him did not accord with the view that his dismissal was justifiable. The Dock Labour Board had very sensibly paid him some small sums in wages in respect of certain periods during his refusal to work, rather than contest the matter in the County Court. The Board had done so whilst denying liability and had plainly not prejudiced their position.

Their Lordships added that it could not be too clearly understood that, in the case of tribunals such as this, Local Board and appellate tribunal appeals did not lie to either the High Court or County Court—they were domestic tribunals whose decisions were final. The Court could only re-open the matter if it could be clearly shown either that there had been a radical departure from the procedure laid down or some act or omission in the proceedings, causing them to fall short of the requirements of natural justice. Their Lordships dismissed the appeal.

It is clear, therefore, that when questions regarding proceedings of these tribunals arise, the first consideration is whether the proper procedure has been observed, e.g., if the person concerned has a right to receive so many days' notice before the matter is dealt with; has that been done? The requirements of natural justice are, perhaps, harder to define; but two of the most important are that the person involved should be told clearly what the complaint against him is and then given an opportunity to state his case. This was not done on the occasion of this appellant's first dismissal and had the matter stopped there, the court might well have intervened.

However, it should be noted that the courts tend definitely towards a policy of non-interference in the domestic proceedings of industries possessing their own statutory tribunals. It is for the person involved to make his case good before his own tribunal in the first place if possible; and it is only when, having done so, he can show that he has suffered injustice or hardship through a failure in procedure that the court is likely to assist him.

From teachers to designers of safety

by W. L. Edwards

EARNEST delegates in record numbers, six speakers mingling scholarship with extensive industrial experience and a distracting background of superb weather were the main features of this year's National Industrial Safety Conference at Scarborough on May 8. Reviewing the work of RoSPA during the past year Sir George Barnett, a former chief inspector of factories, referred particularly to the progress made in implementing accident prevention measures in technical schools and colleges.

Sir George presented to Mr. J. R. Pearson, deputy-chairman of Vauxhall Motors Ltd., the Sir George Earle Trophy for their 30-year record efforts to design safety measures to match new techniques and for their training schemes. To the surprise of a few and to the delight of many delegates, Mr. Pearson pointed out, when he accepted the award, that there was no handrail to the steps mounting the platform of the Concert Hall at the Spa—a conspicuous example of the ubiquity of hazards. Then Mr. Pearson paid tribute to the work of the late Sir Charles Bartlett, for many years chairman and managing director of his firm, and a former president of RoSPA. "Sir Charles," he said, "had faith in the worth of each individual and a care for his safety—and we are now working in the tradition he created".

M. Marcel Robert—chief of the Occupational Safety and Health Division of the ILO—opened the Conference sessions with an address on the voluntary aspects of industrial accident prevention. He declared that "In British and American factories there has been a steady decline in the accident frequency rate between 1938 and 1957, so much so that if the 1938 figure is taken as 100, the 1957 index is approximately 70 for both countries".

"However, in India corresponding figures show that the same index has risen from 100 in 1938 to about 150 in 1948 and 235 in 1956". M. Robert pointed out that this is a huge challenge but not incompatible with our record for achievement and generous effort in this country. Since the Second World War over 20 countries have achieved political independence and we cannot expect them to build economic industries without a knowledge of safety techniques.

Mr. Larke, general manager of Stewarts and Lloyds Ltd., speaking on "Safety Organisation in the Factory", urged that we want to create an attitude of mind which is positive and uninhibiting. The perennial problem of so many processes (such as iron-making), which have inherent risks, demand that training be extended, lay-out engineers and designers should be consulted and, generally, work-study should be adopted.

Management must set an example, especially by wearing protective clothing, and accident fluctuation figures are becoming extremely important. Record-keeping is particularly necessary now that radioactive materials are being widely used and the results of this change will be uncertain for the next 10-20 years.

Naturally, Mr. Larke was outlining *the role of management* in a safety programme and the soundness of his opinions was evident from his repetition of the warning that you can delegate authority but you cannot (and should not try to), attempt to delegate responsibility.

In dealing with safety as a taught skill, Mr. K. S. Marsh of C. & J. Clark Ltd., was giving a success story—this year's accidents to trainees in one of their factories being one half the number recorded in pre-war days. He warned that we must not assume in training that the learner has *common sense*, which really means *experience*.

Therefore Mr. Marsh and his training department have planned the first part of all their training courses to begin with instruction on safety for man, machine and material, to be followed by exercises to acquire skills and, finally, a synthesized training progressively adding one to one—never adopting the bad method of training by doing a job slowly and speeding up, because this contradicts co-ordinating aspects of the work.

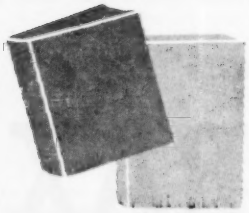
In the discussion on Mr. Marsh's paper, he was asked how he obtained co-operation on new methods from old workers, how to tackle the problem of a c c e p t a n c e—the antagonism, for instance, for being taught by a man a half one's age. His convincing reply was that job analysts are now so well known that older people are impressed when they see that youngsters benefit from these innovations.

Directing our attention to the designer and *his* responsibility, Mr. Brian Shackel, research and engineering psychologist with E.M.I. Electronics Ltd., said that the historical and legal background, rightly placing the onus on the employers, seems to have caused a terrible need for more "feedback" of information from the machine user to the machine designer.

A handbook on safety principles and methods for designers might be helpful. With adequate knowledge and a flow of advice, the designer still needs time—and possible an instruction—in his scheduled programme to ensure that he makes the mental effort and reorientation which are required. Mr. Shackel suggested that management might establish an OPS (operator and safety), phase as part of the design procedure.

The other speakers at the 1959 RoSPA Conference were Dr. R. J. Whitney of the Medical Research Council, Oxford, who observed that light handling situations, though they do not lead to notifiable accidents, may give rise to chronic disorders such as "industrial back"; and Mr. J. A. Hayward, superintending safety officer of John Laing & Son Ltd., who gave an uproarious, illustrated talk, with every shade of gravity and gaiety, on falls in the building industry. When we consider that the Factory Acts only protect young people, that a man subject to fits can work on scaffolding, that building workers are nomadic and are asked few questions when engaged, it is not surprising that the national figures for accidents in the building industry are alarming.

Altogether, the speakers at the formal meetings and the delegates in their hotel conversations endorsed the personal belief of M. Robert of the ILO, who reasoned that failures in some countries to achieve average safety records must be ascribed in the first place to the failure of industry to realise *its moral and economic responsibility*.



New Books

New Developments in Training. Edited by Frank A. Heller. *Polytechnic Management Association, 5s. 6d.*

THE FIVE PAPERS which comprise this booklet present a combination of practical and academic experience.

In the first chapter Professor J. Z. Young maintains that we do not know the right way of teaching anybody. Every lesson we give is an experiment, and therefore we need to devise a method of assessing whether one instructional technique is better than another. The success of teaching, he insists, lies *"in convincing people that they are acquiring information that is both consonant with their past life and likely to be useful in the future"*.

Passing from the theoretical to the practical, the book includes three chapters based on analysis of the work being done in certain firms and research establishments. Douglas Seymour has produced evidence to show that it is possible to halve the normal training period for certain manual skills.

Mr. Heller, editor of the booklet, suggests a form of analysis for the development of executive skills. He lists six qualities which can be taught and describes training methods for producing them. As for teaching, he is amazed that the lecture method has survived so long. Instead he recommends activity methods which resist boredom more effectively.

Management training should be incorporated into the policy of the business, states Mr. Heller, whose opinion is amplified for all forms of training in the chapter by David King, who maintains that *"the introduction of training schemes, at whatever level, can and should lead to a continuing clarification of the firm's policy"*.

Perhaps the most hard-hitting chapter is by Mrs. Winifred Raphael who was recently in charge of a United Kingdom training survey as part of a larger survey carried out in seven European countries. This worthy paper attempts to give a resumé of what 700 companies are doing for the organised training of semi-skilled and unskilled workers.

Office Staff—selection, supervision, training. By Elizabeth M. Pepperell. *Industrial Welfare Society, 8s.*

ALTHOUGH this booklet is designed principally for directors and managers of medium-sized and small organisations, personnel managers should acquire some useful information especially from the appendices (they fill over half the book), dealing with case histories, including a scheme for commercial apprentice training, and lists of courses, films and policies.

The author's theme is that it is not impossible for the smaller firms to make a good job of dealing with their office problems. For example, in the matter of training existing employees there seems to be more scope for job rotation and lessening specialisation in a small firm.

Companies of all sizes suffer from rapid turnover in secretarial and clerical staff. Perhaps a better understanding of their reasons for leaving could reduce the incidence—Miss Pepperell lists and emphasises what management should be able to control: uncomfortable conditions, poor equipment, excessive noise and insufficient work.

Staff Management. By Elizabeth Barling. *Institute of Personnel Management, 5s.*

TECHNIQUES AND PRACTICES which might be usefully adopted by those in charge of staff in undertakings employing large numbers of non-manual workers: this is what the reader will find in this new booklet.

The whole range of personnel functions is covered: recruitment and engagement, training, pay and incentives, communication, records and welfare amenities. But one aspect which recurs throughout is the need for the staff manager to cultivate good relations with other departmental heads, for it is they who ultimately handle the personnel for whom the staff manager is wholly or partially responsible.

Briefly, the author is trying to help the staff manager to carry out one routine which she considers essential to his progress and development: *"He must . . . keep himself abreast of what is new in the province of staff management itself and screen, from the mass of current literature available to him, any new techniques and practices that might be usefully adopted in his own undertaking"*.

Further Along the Road. By H. A. C. Tracey. *Institute of Industrial Supervisors, 4s. 6d.*

THE PROBLEMS of the American foreman are not, comments the author, so vastly different from those of his British colleague. After a 17-day tour of America, Mr. Tracey considers that the similarities impressed him more than the differences. For example, the American supervisor is not wholly accepted as a part of management; it is possible for him to be paid less than operatives under him; and, although policies for training are more ambitious than in this country, the practical steps taken to train foremen often fall short of the aim.

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First Course for Managers

by Bernard Sluman

"The course will make demands on those attending. It will demand enthusiasm and a willingness to learn, but above all it will demand the acceptance of new ideas, and this may be found to be the most difficult of all".

THESE words served as an introduction to a week's residential course for 17 canteen managers at Stoke D'Abernon, staff college of Richard Thomas and Baldwins, steel manufacturers. The new ideas they were asked to accept were nothing to do with catering: they were principles of good management.

Mrs. Frewen-Laton, catering adviser to RTB, explained the whole idea of the venture, which is new to the firm, as an attempt to get canteen managers to stand back and look at themselves and their work objectively. Far too often, she said, the canteen manager finds that he is so busy helping out in the kitchen that he has no opportunity of fulfilling his primary function as a manager. "If you are short of staff in an office or a factory, you can close down or reduce production; but the same rules do not apply in the canteen. There are employees, including managers, who expect a meal, and it has to be provided for them. In such instances, it is often necessary for the canteen manager to lend a hand in preparation".

As if he had not already more than enough to occupy him—she might have continued. After all, Mrs. Frewen-Laton pointed out, he is responsible for every aspect of his canteen's function: buying, producing, costing, selling and organising. At RTB he gives a 24-hour service, seven days a week, 365 days a year. Therefore it is doubly important that he is a good, efficient manager.

Top management, seeing this picture of their canteen managers—it must be duplicated in many other organisations, both larger and smaller—decided that it was only right and proper that their caterers should be given equal opportunities with other managers to learn more about the essence of good management.

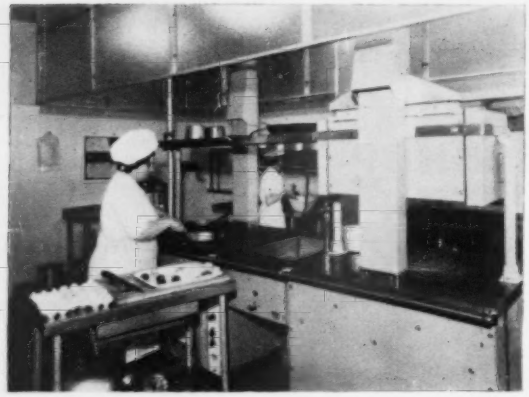
Apart from being just, it is also good business sense. The annual turnover of the firm's 35 canteens is in the region of half a million pounds. Thirty-two unattractive canteens have been gutted and turned into tasteful, modern dining clubs. The money spent on these improvements could never be justified unless the new premises were run efficiently. And, says Mrs. Frewen-Laton, this does not depend so much on the canteen manager's knowing his culinary textbook backwards as on his appreciation of the business side of the canteen—kitchen and dining room. To quote her opening address: "[The canteen manager] requires exceptional administrative ability, leadership and, above all, the personality and enthusiasm to weld a bunch of raw recruits into a loyal, efficient team".

The fact that RTB entered upon this course for their canteen managers at all is noteworthy in itself. However, the real interest must be in the form and nature of the course. First of all, the number of formal lectures was reduced to a minimum. The emphasis throughout was on discussion groups and syndicate work.

As an exercise in work study, students were given the diagram of a domestic kitchen programme where the work was represented by a series of journeys made by the housewife. Each of the three syndicates was sent away to study the problem, with a view to suggesting methods by which the number of moves made by the housewife could be reduced. By re-arranging the equipment and the sequence of operations, the group with the most satisfactory solution managed to achieve a saving of 11½ journeys.

Perhaps the most worthwhile point at which to begin thinking about the organisation and lay-out of any pro-

A refreshing break from work: catering heads from Richard Thomas & Baldwins gather to study and discuss their primary function—management



The kitchen at Stoke D'Abernon staff college, where RTB hope to develop their industrial canteen training scheme

ductive unit is in the planning stage. Therefore, the course members were given the task of planning the firm's canteen which they propose to open at Newport. All relevant details regarding size, site and number of employees at all levels were set out, and the three groups spent several profitable hours in working out the best answer: number of managers required, number of dining rooms and kitchens, the types of kitchen and the organisation chart for the catering managers. A period of time was then set aside for reporting back and discussing the different plans submitted by each syndicate.

Naturally, it would be wrong for anyone to regard management as being confined to the effective organisation of equipment. Therefore, the course devoted a session to one topic that is creating great interest at all levels of industry: *why people work*. The treatment took the form of an open discussion, led by Dr. W. P. Hargreaves, principal of Stoke D'Abernon. It was only natural that there should be a diversity of opinion on this subject—perhaps more than on any other. Some members thought that catering staff would be satisfied and spurred on by the creative nature of their work; others considered that the greatest motivating force was a feeling of authority and responsibility. Yet another incentive was sought from a sense of security.

Other topics that came under discussion included hygiene and food-poisoning (with which caterers are already well acquainted), and safety in the kitchen. But no matter how basic the subjects were, it is important to remember that the primary aim of this course was to stimulate the members to look at their work objectively. In this way, it is hoped that the efficiency of the canteens throughout the firm will increase, so that full benefit can be derived from the recent modernisation of equipment, lay-out and organisation.

It would be unfair to neglect Richard Thomas and Baldwins' other activities in the training of catering staff. For they do not concentrate their efforts solely on the managerial level. Although the six-day course at Stoke D'Abernon was a new departure, there are already arrangements for the education of catering apprentices and trainees. At present, Mrs. Frewen-Laton has 16 boys and girls undergoing training: they will be the managers of the future.

Besides receiving practical training in the firm's own kitchens, these young people, who are all of G.C.E. standard, are released for one full day to attend at local educational institutes where they are coached for the City and Guilds examinations (Nos. 150, 151 and 153). The intention is to provide them with an attractive career—eventually they will be put forward for membership of the Hotel and Catering Institute. As Mrs. Frewen-Laton observes, there is much in the industrial sphere to attract young people who are considering catering as a career. But having obtained recruits one must be able to show them that their future can be progressive and fruitful—especially concerning status.

In a word, the whole view of catering at RTB is as a fully fledged profession. Mrs. Frewen-Laton, who has seen industrial catering rise from the appalling dowdiness of the war years, is trying to destroy the image of the job as purely a menial one. She maintains that its importance as a productive part of the modern industrial machine merits equal treatment regarding status, remuneration and training with every other department in the factory.

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A Monthly Survey for Personnel Managers

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Safety

AUTOMATIC PROTECTION

FOR workers who will wear a protective suit but not a safety harness, this new nylon suit has been developed with a built-in harness so that the wearer automatically protects himself when he puts on the suit. The harness is designed on the same principles as a standard parachute harness and functions completely independently of the suit, meeting the British Standard requirements for a static drop of a 200-lb weight from six feet. The

webbing is slotted through the suit and can be removed easily for cleaning. The suit itself is made from waterproof polyurethane-proofed nylon, with rubber seals at the wrists to prevent water from entering when working with arms above the head. The fabric is said to be resistant to oils and greases and to be very hardwearing yet light in weight—only 4½ lb.

Enquiry Ref. No. S7/1

FOR THE OVER-CONFIDENT

IT is not faulty scaffolding that causes accidents, say the makers of this new multi-purpose safety equipment. They place the blame on workers' over-confidence and on their unguarded, relaxed moments. Therefore they feel that there should be a market for their equipment which comprises a choice of three waistbelts. The "Wiry" is of conventional design and made from flax webbing with the eyelets protected by internal wire cords set in leather liners. The "Gripper" is an endless web belt that is said to give perfect comfort and security by simply pulling the webbing tight on either side of the two-way buckle. Lastly, the "Surelok" is an all-weatherproof new construction Terylene web belt with P.V.C. coating and a single-action, "snap-to" locking safety buckle. These models can be converted with the aid of anchoring attachments, straps, ropes and lines. Other extras can help make a bosun's chair or lifting appliances for use during rescue operations.

Enquiry Ref. No. S7/2

Heating

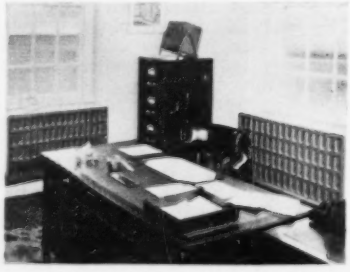
ALUMINIUM FOIL

A SIMPLE method of installing floor warming without major rebuilding has been devised. On top of ordinary floorboards a covering of aluminium foil is laid from wide reels. P.V.C. covered heating cable of about ¼-in. diameter is then put down lengthwise on the floor, separated and retained in position by 2-in. wide strips of hardboard.

The foil underneath reflects the heat upwards, warming the feet but not the head. It also acts as an excellent moisture vapour barrier in addition to being odourless, lightweight, vermin proof with a high degree of permanence, say the makers of Star Foil. As aluminium foil reflects heat from both sides, it may be considered as the insulating medium in ceilings and walls—it will keep out the heat in summer and hold it in during the winter.

Enquiry Ref. No. H7/1

NO INSTALLATION COST



A STEADY temperature and economy in the consumption of electricity are two of the features claimed by the makers of these oil-filled, electric radiators. There are no installation costs—the heaters are just plugged in—and no maintenance. Illustrated are two 1½ kW models D.416 mounted on wall brackets. They are obtainable with feet or castor wheels at a small additional cost. All are available in nine colours and can be fitted with a time-switch for additional economy.

Enquiry Ref. No. H7/2

OIL-FIRED SYSTEM

SMALLER premises can be equipped with oil-fired heating systems. The Oil-Crat has been especially designed for such buildings and, with a maximum output of 12,000 B.T.U.s per hour heating rating, it is claimed to provide for normal hot water requirements plus, if required, from two to three panel radiators. The manual model has a six-position control knob operating the burner from high flame down to pilot flame when only one-tenth of a pint of oil per hour is consumed. The thermostat model costs only £3 more than the standard model (£39 and £42) and all are obtainable in white, cream, green or blue. Installation, say the makers, is hardly more in cost than for a solid fuel boiler, and a 50-gallon storage tank, costing about £5, should last about five or six weeks before it needs replenishing.

Enquiry Ref. No. H7/3

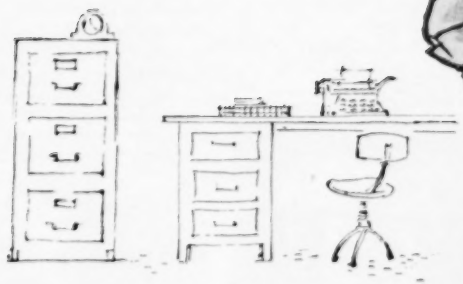
Welfare

TELESCOPIC HANDLES

ALL the advantages of a standard stretcher plus additional features are to be found, say the makers, in the Mercia. The most important feature is that, once a patient is in position, there is no need for him to be moved until he reaches the place of treatment. Mercia consists of a light tubular frame to which five angled rungs have been fitted. These rungs give protection to the patient's back and also act as additional hand-grips whilst raising or lowering. Telescopic handles are fitted which, when used in the extended position, are easily carried by two bearers. However, when these handles are retracted, the stretcher can be carried by means of two bowed rungs around the head and the feet.

The frame is also fitted with a stout canvas container which is secured by webbing straps and that is shaped like

Glamorous Nylon on double duty for office beauty



Here's fashion in a business-like mood. Supercraft overgowns, tailored for figure flattering smartness, made from nylon for lasting beauty, represent a popular way of raising your staff's morale—and efficiency.

There are Supercraft overgowns and overalls for every member of your staff, male or female, from factory hands to receptionists, not only in nylon but in poplin and other materials too.

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FACTORIES AT OLDHAM

a bag so that the patient is totally enclosed and cannot slip. Another advantage is that the patient's head can be placed at either end of the stretcher.

Enquiry Ref. No. W7/1

WORKS FASHION

PURE Lancashire cotton has been chosen by the makers of "Summer Dress" overgowns because its natural fibre is claimed to be healthy and hygienic, absorbing perspiration and permitting the body to breathe. They are made in attractive candy stripes and are cut in modern style. One distinct advantage which they see in the new product is that now the woman industrial worker can arrive straight from home well dressed, yet ready for work.

Enquiry Ref. No. W7/2

MOOD MUSIC

TAPE-RECORDED background music for factories, shops, offices and restaurants is provided by a new service. The basic subscription is 85 gns. per annum for 108 hours of music, two hours of which are changed weekly throughout the year. The makers have associated reproducing equipment providing automatic tape reversing, with a minimum two-hour programme repeating continuously without attention. A model containing a 15-watt amplifier and facilities for microphone operation can be provided at a rental of 30 gns. per annum. Lower-powered models are available for use with existing public address equipment, where suitable. To back up the service, the makers claim to have the largest library of tape music in Europe.

Enquiry Ref. No. W7/3

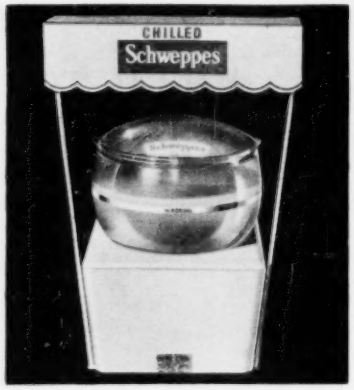
100 CUPS PER HOUR

NOW available is a new counter unit for serving measured and automatically counted drinks of iced Coca-Cola at the touch of a button. The unit was seen for the first time at the Factory Equipment Exhibition in April. It is said that the model will dispense the drink at about 100 cups per hour, recording each one electrically on a non-reset counter. The Coca-Cola is stored in stainless steel tanks which can be placed under the counter or, if space is limited, at almost any reasonable distance from the dispenser. No water supply is needed. Dimensions: 16 in. by 18 in. by 19 in. high. Finish: red stoved-enamel on zinc-coated sheet steel.

Enquiry Ref. No. W7/4

SQUASH DISPENSER

THE Acro-Kool squash dispenser features a five-gallon, clear "Perspex" bowl, illuminated from above, in



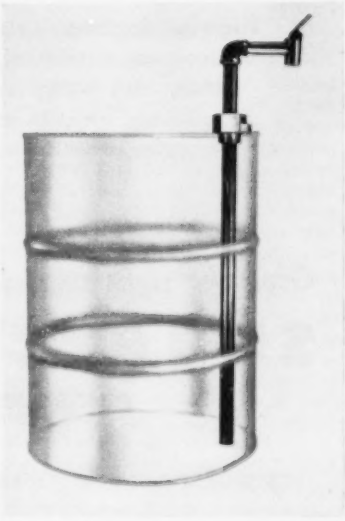
which the liquid constantly cascades. Drinking temperature is adjustable and thermostatically controlled. A free maintenance service is offered and there is an undertaking that each year the suppliers will incorporate a modification in design to catch the eye. The dispenser may be used to sell only the company's own squashes and cordials, etc.

Enquiry Ref. No. W7/5

Efficiency

EVEN FLOW

THE Suba Model 108 air-operated, barrel dispenser is capable of delivering liquids without fluctation or pulsing at the rate of 15 gallons per minute, say the makers. Operation: the barrel cap is opened, the dispenser



DM107

Help to prevent the spread of Polio

You know that doctors are inoculating children to make them immune from Poliomyelitis and it is especially desirable that this immunisation campaign should be vigorously pursued and as widely extended as possible. But common sense methods of hygiene, as a further protection against Polio, should not be ignored.

The Poliomyelitis virus is found in large numbers in the intestinal tracts of people suffering from the disease. But "*a large proportion of the virus hosts are symptomless carriers*".*

These carriers are often quite unaware of the presence of the virus and unaffected by the disease themselves; but they can unwittingly infect others who may then develop the disease. Flies and bluebottles are, of course, also distributors of Polio virus and dangerous germs in general.

You can help considerably by insisting on high standards of hygiene in your Offices and Factories. The washing of hands before meals and after going to the toilet is *most important*. And constant war should be waged on flies. As shown by the World Health Organisation's Technical Report, oxidising agents are the most effective chemical disinfectants against the Polio virus. *Domestos is an extremely powerful oxidising agent.*

It is therefore a sensible precaution to use Domestos for cleaning and disinfecting all surfaces in kitchens, canteens—wherever food is handled and prepared; in dustbins and waste containers; and in all lavatories and urinals.

Send for Publication No. 98 which gives detailed instructions for use.

* "Topical Aspects of Poliomyelitis"
"Journal of the Royal Society of Health" Dec. 1956

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Consultants in Hygiene

NEWCASTLE UPON TYNE, 6.

screwed in and connected to the air supply. No priming is necessary and the instrument will never dry out. Other than the delivery valve, which is manually opened and closed, there are no moving parts and this reduces the amount of wear. The dispenser does not require a continuous supply of air as it will maintain its own pressure, once charged, until an appreciable drop in the level is reached. Cost: £7 10s. ex-works.

Enquiry Ref. No. E7/1

TOUGH AND FLEXIBLE

EASILY cleaned, even after containing cement and plaster: this is one of the claims for a new polythene heavy-duty bucket. Obtainable in battleship grey, the bucket is specially designed to withstand the roughest treatment, has a reinforced top rim, sides and bottom, and a full-sized lip to make it easy to pour liquids and mixes of all kinds. Apart from being acid- and mould-proof, the bucket is said to be flexible and to have no sharp edges—a major cause of many accidents. Capacity: three gallons; weight, 2¼ lb. The bucket has a handle made of galvanised steel and a centre wooden hand grip. Prices vary from £3 6s. for four buckets to £9 for 12. Quantity discounts are available for orders of six dozen or one gross.

Enquiry Ref. No. E7/2

RE-USABLE BADGE

LAPEL badges are often called for where large numbers of people are assembled and are urged to mix: works

outings, courses, receptions, conferences, etc. It is an expensive affair if new badges have to be made for each occasion, and that is why the makers of the "Lonlabel" re-usable badge are marketing their new product. It consists of a plastic holder fitted with a brooch-pin attachment. Names are typed on strips of perforated paper and placed in the holder behind a transparent plastic cover which is obtainable in a range of pastel shades. After use they are collected and re-used by simply typing new insert papers.

Enquiry Ref. No. E7/3

ONE-HOUR CLOCK

THIS new model in the ECS range of industrial and scientific timers has a 12-in. dial with a red sweep second hand. Incorporated on this main dial is a minute hand scale-marked to record up to one hour. The second hand is continuous and may only be stopped by switching off the mains supply. The minute hand is also continuous but can be readjusted or zeroed by turning the setting stem which protrudes from the bottom of the case. For connection to AC supply

Further details of the items featured in 'Equipment Market' can be obtained by returning a completed enquiry reply coupon.—Pages 35/36.

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See descriptive publication PH 1952

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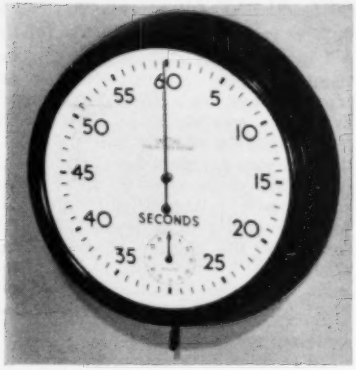


200/250v. 50 cycles, this model is available with the 12-in. dial only. Designed for wall fixing, it costs £14.

Enquiry Ref. No. E7/4

HANDY BELT SPRAY

ONLY a few seconds are needed to treat moving belts, say the makers of Grako Sprazon belt dressing. By spraying the dressing from its container, it is possible to keep belts resilient, pliable and elastic without disturbing production. Other advantages claimed for this new product: the spray leaves no mess to clean up, every drop is used. It is possible to spray in any direction, so reaching normally inaccessible places. The Sprazon container can be kept close to the operator's hand for use immediately it is required—when a belt begins to slip, for example. The container can be used for flat, *V* or round belts made in leather, rubber or textile.

Enquiry Ref. No. E7/5

APPLICATOR SPONGE

TO help users to comply with the instructions for use of their Molybdenum disulphide paste, the makers have produced this new general purpose paste 100 applicator tube.

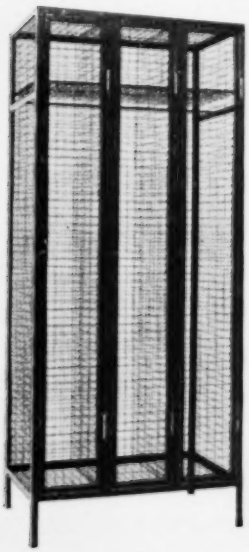
Thorough rubbing-in is a recognised essential in the application of the paste and therefore the new tubes are fitted with a special applicator sponge which helps to ensure that the paste will rub straight into the metal surfaces. This is said to result in a gaining of functional effectiveness and at the same time avoids waste and inconvenience. There is no extra charge for the tube which remains at 6s. 8d. for 2 oz.

Enquiry Ref. No. E7/6

Office Aids

SNAP-IN CASSETTE

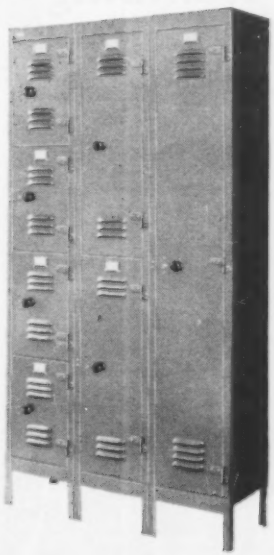
MANY novel and attractive features are claimed for a new dictation machine (Type *EL* 3581). Chief among these is the snap-in type cassette which eliminates the need for tape threading and handling. Other features: lightness, portability and a full range of accessories. A system of easily-operated, positive locking controls guard against operational errors and there is a fast-erase facility. Reversible cassettes give a recording time of 40 min. per tape. Two warning devices are a pilot light to indicate when the



An Important Amenity

Friction between employees and confusion at going-home time may be avoided by providing separate receptacles for clothes and personal belongings. Such provision is also important in the interest of hygiene. 'Harco' Clothes Lockers provide the answer. They are made in sheet metal or wirework, in nests of up to five in one unit, with short or full-length compartments as required.

Steel lockers are fitted with 6-lever locks which can differ up to 1,600, wirework lockers carry hasps and fasteners for padlocks. Height of both types is 72 in.



'HARCO' CLOTHES LOCKERS

IN WIREWORK OR SHEET METAL

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Harvey

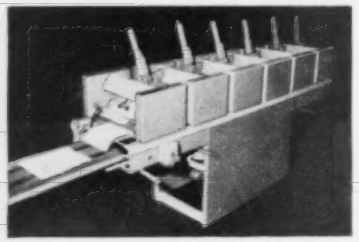
W/SE/3

machine is switched on, and a red light in the microphone to show that sound is being recorded. The dual-purpose microphone can be used as a monitoring replay speaker if required.

Enquiry Ref. No. O7/1

ELECTRIC COLLATION

THE manufacturers of the Metromatic believe this to be the first British automatic collating machine. The standard model (illustrated) is a six-stack machine. Papers are placed in the separate bays, whence they are



carried to the front on a travelling band. The machine is so geared that the sheets are placed on top of each other in the correct order as the belt moves along. Average speed is 30-32 sets per minute although the speed can be varied to suit individual requirements. The machine is electrically operated and can be stopped from any one of five points along its length. Price of the standard model: £335—extra bays: £50 each.

Enquiry Ref. No. O7/2

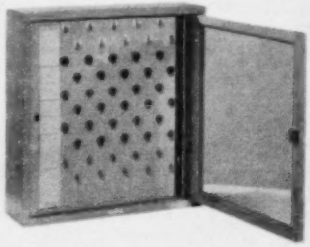
FOR DICTATORS

THE ATE telephone-dictation recorder works through existing private automatic telephone systems and enables selected extensions to have access to and control of remotely-located tape recorders. Correspondence is dictated over the extension and the only equipment in the office is a small control unit marked "dictate", "stop" and "listen". Having dialled the dictating extension, the user waits for the "waiting" tone. To dictate he presses the appropriate key and speaks. To play back the recording the "listen" key is depressed; this causes the tape to be rewound either until the key is lifted or the beginning of the recording is reached. On release of the "listen" key the tape moves forward and plays back the recording.

Enquiry Ref. No. O7/3

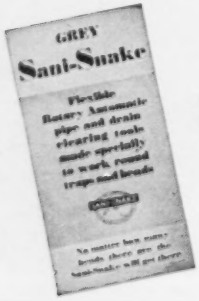
KEY ACCOMMODATION

NEW in the way of key cupboards is this small yet compact model. The standard model can take up to 50 separate keys, on a front leaf. However, it is possible to have this front leaf hinged so that it will pull out, leaving space for more keys on its other face. The range is made up of three models with prices ranging from £10 for the model with no leaves (50 keys) to £16 for the model with two leaves (250 keys). Each side has its own index, and numbered discs can be supplied for each hook (8d. each). For



Keep plumbing clear

REMOVED by the "Sani-Snake" after all attempts by other means had failed.



One blocked waste pipe may cost you anything from £10 to over £100 for excavation or dismantling. A "Sani-Snake" will cost you £10 or less and will eliminate the necessity for such costly work. A very large number of famous manufacturing firms and departmental stores are daily using the "Sani-Snake."

The equipment reduces the clearance of pipes to the simple job of turning a handle. Any member of the maintenance staff can use it. There is work for a "Sani-Snake" wherever pipes are in use.

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Licensee and Manufacturer

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Medical

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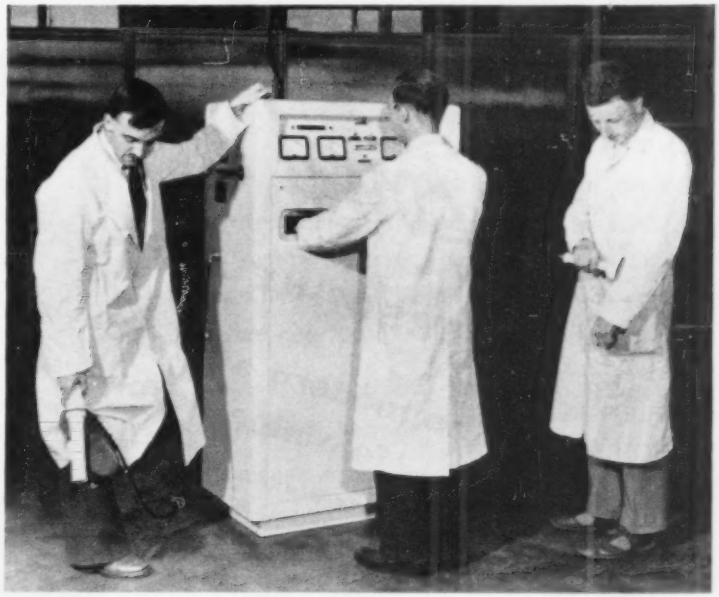
DEVELOPED to meet the requirements of the United Kingdom Atomic Energy Authority, this new hand and clothing monitor, Type 1, embodies many features for rapid and accurate monitoring of radio-active contamination of personnel. The use of large area dual phosphor scintillation counters has reduced the total time for alpha and beta hand monitoring to five seconds. Safety features: audible and visible warnings operate when the maximum permissible level is exceeded and similar warnings are given if the hands are removed before the end of the count period. The check on clothing is carried out simultaneously with the reading of hands. The unit contains quick-release, plug-in sub-units for ease of servicing.

Enquiry Ref. No. M7/1



It is hoped that firms with new products for better and safer working in industry will continue to send details to the Editor. In this way we can maintain the news value of our comprehensive Equipment Market—now especially important because of the introduction of our Reader Enquiry Service.

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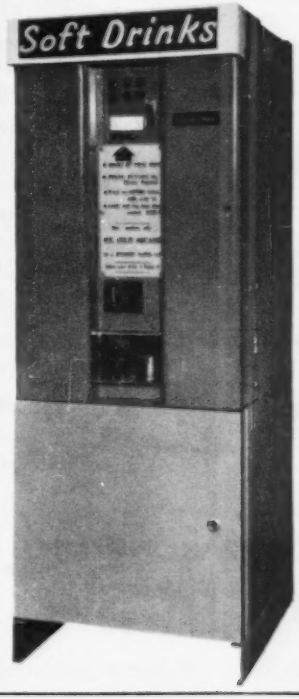

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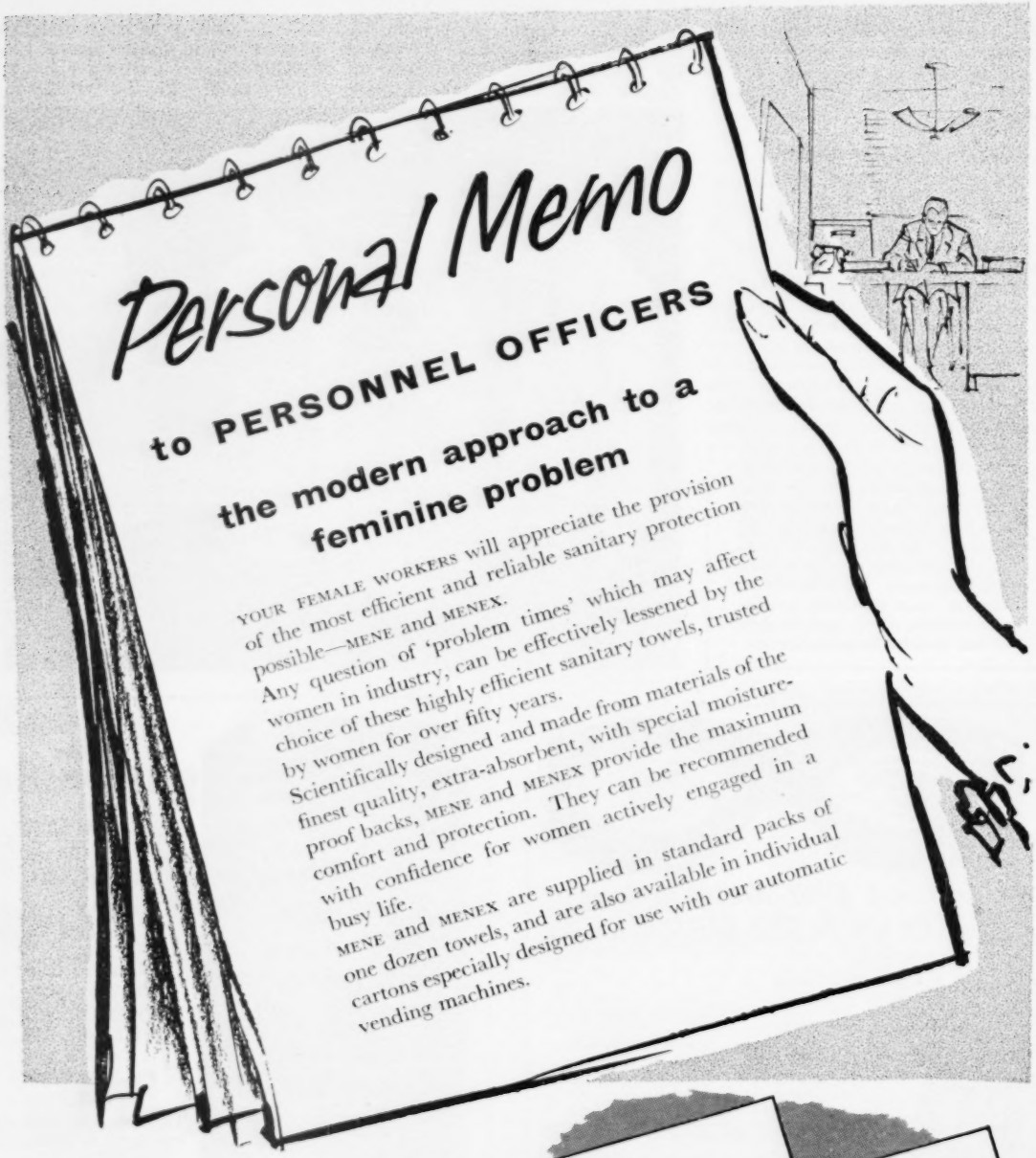
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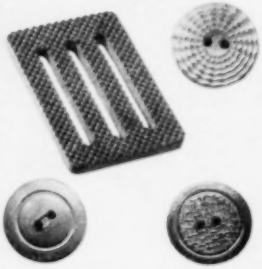

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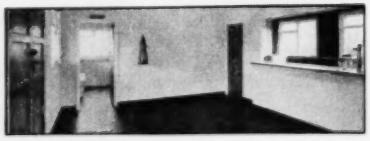

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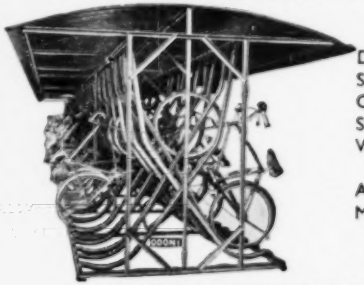

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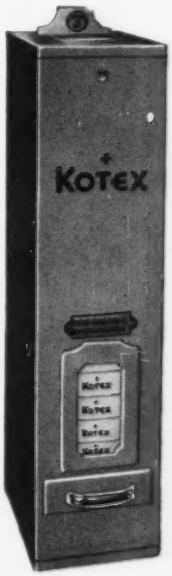

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